



LEUPOLD®
TACTICAL OPTICS

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CQ/T®
Close Quarter/Tactical
Scope

.....

OPERATING INSTRUCTIONS



www.leupold.com
Part# 54138
Artwork# 54139 F



The Leupold® Mark 4® CQ/T® 1-3x14mm Scope

Congratulations! You are now the proud owner of one of the finest tactical riflescopes ever produced. We trust that you will receive years of exemplary service from it.

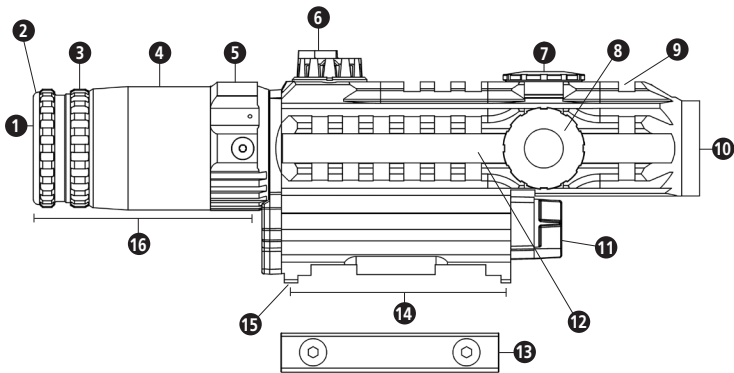
The development of the Leupold® Mark 4® CQ/T® drew upon the collective wisdom of not only Leupold's finest product developers and engineers, but that of various branches of U.S. law enforcement and military agencies as well. The Mark 4 product group itself began in the mid 1980s with the creation of the Leupold Ultra scope for the M-24 sniper weapons system. The present CQ/T, or Close Quarter/Tactical, scope had its genesis with the first Leupold Military and Tactical Conference of 1995. It was determined that a small, variable magnification scope was needed by the various U.S. military and law enforcement agencies.

The scope you now have before you is the product of many years of research, design, and development — all performed with the intention of creating the most reliable, versatile, and responsive tool for both military and law enforcement personnel. We put our complete faith in this scope as we know the importance of its uses.

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Leupold Mark 4 CQ/T



1. Ocular Lens
2. Diopter Adjustment Ring
3. Diopter Adjustment Lockring
4. Eyepiece Shell
5. Magnification Selector
6. Illumination Control Dial

7. Elevation Adjustment Dial
8. Windage Adjustment Dial
9. MIL-STD-1913 Accessory Rail
10. Objective Lens
11. Battery Pack (Battery Tube & Battery Cap)
12. MIL-STD-1913 Accessory Rail

13. Flat-Top Mounting Bracket
14. Mounting Foot
15. Mounting Foot Lug
16. Combination Eyepiece / Magnification Selector

YOUR LEUPOLD MARK 4 CQ/T 1-3X14MM PACKAGE CONTAINS THE FOLLOWING ITEMS:

- 1 Leupold Mark 4 CQ/T 1-3x14mm scope
- 1 carry handle mounting stud with hex nut
- 1 battery tube
- 1 battery tube cap
- 1 AA battery
- 1 flip-up ocular lens cover
- 1 flip-up objective lens cover
- 1 flat-top mounting bracket

Installing the Battery

PREPARING THE BATTERY PACK

1. Insert the AA battery positive (+) end first into the battery tube.
2. Close the tube with the battery cap, threading it into the tube until the tube is firmly sealed.

INSTALLING THE BATTERY PACK IN THE SCOPE'S BATTERY CHAMBER

1. Insert the battery pack positive (+) end first into the scope's battery chamber.

2. Firmly press the battery pack all the way into the chamber until it will not go any further and the battery cap lip is in line with the adjacent battery pack seating notch in the scope's maintube.
3. Rotate the battery pack by the battery cap until the battery cap lip seats in the battery pack seating notch and will turn no further.

Mounting the Scope

FLAT-TOP MOUNTING PROCEDURE

Preparing the Leupold Mark 4 CQ/T 1-3x14mm scope for flat-top (MIL-STD-1913) mounting:

1. Loosen the 1/2-inch hex nuts of the mounting bracket until they are near the end of its cross bolts.

Mounting the Leupold Mark 4 CQ/T 1-3x14mm scope on a flat-top (MIL-STD-1913) mounting rail:

1. Place the Leupold Mark 4 CQ/T 1-3x14mm scope atop the MIL-STD-1913 mounting rail so that the mounting foot lugs of the mounting foot engage the cross slots of the rail.
2. Holding the scope in place, check the eye relief of the scope; adjust the position of the scope as necessary until the mounting foot lugs engage the rail's cross slots in a position that allows for a full sight picture when the firearm is shouldered. Note this position.

3. Remove the scope from the rail and attach the flat-top mounting bracket to the mounting foot of the scope so that the hex nuts are on the same side of the scope as the windage dial, the longer points of the mounting bracket rails engage the mounting grooves on each side of the mounting foot, and the cross bolts are seated between the cross braces. (The mount rails can be mounted with the hex nuts on the opposite side but the suggested configuration avoids snagging of clothing during operation.)
4. Return the scope with the mounting bracket to the MIL-STD-1913 mounting rail in the same position noted for a full sight picture.
5. Make certain that both mounting foot lugs engage the MIL-STD-1913 mounting rail cross slots and that the mounting bracket rails hook over each side of the MIL-STD-1913 mounting rail.
6. With one hand atop the scope pressing down and forward to ensure a solid mount engagement, finger tighten the hex nuts of the mounting bracket until the assembly is snug.
7. Using a 1/2-inch hex wrench or socket, alternately tighten each nut until the mounting bracket is secure.
8. Complete the installation by using a torque wrench and 1/2-inch socket to apply 65 inch-pounds of torque to each hex nut. (The use of the Mark 4 Torque Wrench is recommended for this procedure.)

CARRY HANDLE MOUNTING PROCEDURE

Preparing the Leupold Mark 4 CQ/T 1-3x14mm scope for carry handle mounting:

1. Insert the carry handle mounting stud into the center hole in the scope mounting foot and make it snug using only your fingers. This stud will be securely tightened when the stud nut is tightened.

Mounting the Leupold Mark 4 CQ/T 1-3x14mm scope on a carry handle:

1. Insert the mounting foot into the sight groove of the carry handle so that the scope's mounting stud passes through the carry handle's mounting stud hole and the foot rests firmly in the sight groove of the handle.
2. Thread the carry handle mounting stud nut onto the mounting stud.
3. Place the firearm to the shoulder to ensure that full eye relief is available. If lesser or greater eye relief distance is required, return to Step 1. under "Preparing the Leupold Mark 4 CQ/T 1-3x14mm scope for carry handle mounting" and place the stud in either the first (as measured from the eyepiece, to mount the scope further forward) or third (to mount the scope further back) mounting foot hole and repeat the procedure.
4. Secure the mounting stud nut using a wrench or other appropriate tool until it is firmly seated against the carry handle.

Preparing the Leupold Mark 4 CQ/T Scope for Use

FOCUSING THE RETICLE

With the scope held an appropriate distance from your eye to achieve a full sight picture, the reticle should appear sharp and crisp; if it does not, it is necessary to adjust the focus by means of the eyepiece.

1. Grasp the eyepiece with one hand and back the diopter adjustment lockring away from it by twisting the lockring counterclockwise with the other hand. Once the lockring is free from the eyepiece, turn it counter-clockwise away from the eyepiece to keep it out of the way during the adjustment.
2. If you tend to hold things away from yourself to see them clearly (i.e., presbyopic or farsighted), turn the diopter adjustment ring counter-clockwise by three or four turns. If you hold things close to yourself to see them clearly (i.e., myopic or nearsighted), turn the diopter adjustment ring clockwise by three or four turns.
3. Look away at the sky and allow your eye focus to relax, then take a few quick glances through the scope at the reticle. The focus of the reticle should be noticeably different from when you started. Continue this process, turning the diopter adjustment ring until the reticle appears clear and sharp.

4. When you are satisfied with the image of the reticle, turn the locking clockwise so that it rests firmly against the eyepiece.
5. Grasping the eyepiece firmly with one hand and the locking and diopter adjustment ring with the other, give them both one final clockwise turn to secure the locking firmly in place.

If your eyesight changes, readjust the diopter adjustment ring. As eyesight changes with age, you may want to check the sharpness of the reticle on your scope every few years to ensure it is still adjusted correctly for your eye.

Operating the Scope

MAGNIFICATION

The magnification selector of the Leupold Mark 4 CQ/T 1-3x14mm scope is joined to the eyepiece to form a large gripping surface. This, combined with the knurled ring with two pronounced ridges separated by a groove large enough for a finger to rest within located at the 1x position, is to allow the magnification level of the scope to be changed without the necessity of looking directly at the scope.

CHANGING THE MAGNIFICATION LEVEL OF THE SCOPE

1. Grasp the eyepiece firmly, placing the index finger or thumb between the two large ridges of the magnification selector.

2. Turn the eyepiece clockwise until it stops and the thumb or index finger rests against the lower right side of the scope. That position is 3x magnification.
3. Turn the eyepiece counter-clockwise until it stops and the thumb or index finger rests just behind the illumination control dial of the scope. That position is 1x magnification.

ILLUMINATION

The illumination of the reticle of the Leupold Mark 4 CQ/T 1-3x14mm scope is controlled through the illumination control dial, located atop the scope just in front of the magnification selector. It features, rotating clockwise, twelve positions:

1. OFF
2. Illumination settings one and two (indicated by the two smallest dots on the dial) for use with night vision equipment.
3. Illumination settings three through ten (indicated on the dial by dots of increasing size).
4. A battery check setting (indicated on the dial by the image of a battery) that will illuminate the reticle only if the battery contains 1.2 volts of charge or more. If the battery is running low, the reticle will blink continuously.

As the dial is composed of elevated rays emanating from its center, each being

one specific setting, illumination settings can be made without the necessity of looking at the scope. The OFF setting, indicated by a ray that is raised above all the others, can be located tactilely. As the illumination control dial setting indicator is directly in front of the power selector, the proximity of this OFF setting to the power selector or its position away from it in a clockwise orientation tactilely indicates the intensity setting of the reticle.

WINDAGE AND ELEVATION

The windage and elevation adjustment dials of the Leupold Mark 4 CQ/T 1-3x14mm scope are located on the top and right side of the scope respectively. These dials are covered with a knurled, threaded cover, the lip of which can be used to make adjustments to the slotted head of the dial if no other tools are available. Both adjustment dials are marked in 1/2 minute of angle increments and click into position at each of these markings.

THE CIRCLE DOT RETICLE

The Circle Dot reticle of the Leupold Mark 4 CQ/T 1-3x14mm scope is designed to offer fast target acquisition in any environment.

Dot Size: 3 MOA at 3x, 9 MOA at 1x

Circle Size: Edge to edge, the subtension of the circle is 18 inches at 25 yards, or 6 feet at 100 yards when set on 3x. From the center of the dot to the edge of the circle, the subtension is 6 feet at 200 yards when set on 3x.

Circle Line: The width of the line creating the circle is large enough to be easily visible

but thin enough so as not to obliterate an 18-inch object at 500 yards when set on 3x.

Zeroing the Scope

BORESIGHTING

To save time and ammunition, the use of a boresighting collimator to “get on the paper” is recommended. Remember that adjustments made during boresighting will appear to move in the opposite direction than that indicated by the adjustment dial. As the Leupold Mark 4 CQ/T 1-3x14mm scope is sometimes mounted atop a carry handle, boresighting using a collimator is not always possible. In these cases, it is best to use the traditional method (“Traditional Boresighting,” on the next page) of sighting down the barrel to the target.

Using a boresighter:

1. Attach the boresighter to the barrel.
2. Look through the scope to assess the position of the scope’s reticle relative to the boresighting grid. The center of the scope reticle is sometimes some distance away from the center of the boresighting grid.
3. Begin with the windage adjustment. Turn the windage adjustment dial until the center of the scope’s reticle is in horizontal alignment with the center point of the boresighting grid. Note that when using a boresighter the windage needs to be turned in the “R” (right) direction to make

the reticle move left in relation to the target. Also note that the knurl on the top edge of the cap can be used as an adjustment tool.

4. Now turn the elevation adjustment dial until the center of the scope's reticle aligns with the center point of the boresighting grid. Note that the elevation adjustment needs to be turned in the "D" (down) direction to make the reticle move up in relation to the target.

5. Remove the collimator from the barrel.

NOTE: Boresighting alone is not sufficient to sight-in a scope. You must make final adjustments by shooting the firearm using the same ammunition you use in the field.

Traditional boresighting of AR-15 and M-16 firearms using a target from 20 to 50 yards away:

1. Position the firearm on the bench, using sandbags to steady the firearm as necessary.
2. Release the rear receiver pin of the firearm.
3. Separate the upper and lower receiver halves.
4. Remove the bolt.
5. Position the firearm with the muzzle facing the target.
6. Looking through the bore itself, move the firearm to center the bull's-eye of the target inside the barrel.

7. Hold the rifle steady. With the bull's-eye centered when viewed through the bore, make windage and elevation adjustments to the scope until the very center of the reticle is aligned with the bull's-eye of the target.

LIVE FIRE ZEROING USING THREE-SHOT GROUPS

Regardless of which boresighting method was used, the next steps are the same on the firing range. To ensure reliable results, always fire from a rested position when performing these steps.

1. Fire a shot or two.
2. If you are several inches off center, make an appropriate amount of adjustment to move the reticle to the center of the target.
3. Carefully fire a three-shot group.
4. Use the center of that group as a reference point for the final adjustments to windage and elevation.

ZEROING THE WINDAGE AND ELEVATION DIALS AFTER SIGHTING IN

Leupold Mark 4 CQ/T 1-3x14mm scopes feature adjustment dials that can be repositioned to align the marked zero of the dial with the position indicator without changing the adjustment setting of the scope that was achieved when sighting in. This allows the original zero of the rifle to be known in the event further adjustments are made in the field.

Both the windage and elevation adjustment dials have a pointer dial atop the increment dial that moves with the slotted adjustment screw. This dial also can be moved independently to align with the zero on the outermost dial. To reposition this dial, simply rotate it using a small flat bladed screw driver, knife blade, or other tool until the pointer is aligned with the zero position of the increment dial.

Scope Accessories

MOUNTING ACCESSORIES TO THE SCOPE

The Leupold Mark 4 CQ/T 1-3x14mm scope is designed with two MIL-STD-1913 rails, one running along the top and one running along the right side of the scope. These rails are intended for use in the mounting of additional accessories to the scope, such as flashlights, lasers, and other tactical equipment as needed. An accessory should be mounted to the scope following the instructions provided by the accessory's manufacturer.

LENS COVERS

The Leupold Mark 4 CQ/T 1-3x14mm scope is standardly equipped with both ocular and objective flip-up lens covers. The use of these lens covers is left to the discretion of the scope user. These covers simply seat over the objective ring

and eyepiece adjustment ring of the scope after all mounting and initial adjustment procedures have been completed.

As the eyepiece of the Leupold Mark 4 CQ/T 1-3x14mm scope rotates when magnification adjustment is made, the ocular lens cover should be seated with the magnification set at 1x and the open ocular cover lid at the 11 o'clock position. This will prevent the opened cover from getting in the way when the magnification level is increased to 3x.

Maintenance

LENSES

The Leupold Mark 4 CQ/T 1-3x14mm scope lenses are coated with anti-reflective ion assist DiamondCoat™ coatings to prevent reflection, light scattering, and to increase their scratch resistance. Ideally, they should be cleaned in the same way as a camera lens. Begin by using a standard lens brush to remove dust, and then pure alcohol, high-grade glass cleaner or pure water on a cotton swab to remove any smudges.

WINDAGE AND ELEVATION ADJUSTMENTS

These adjustments are permanently lubricated. There is no need to lubricate them. Keep turret caps on, except when adjusting, to keep out dust and dirt.

(It's worth noting that, unlike competitive brands, Leupold scopes are waterproof even without the caps in place.)

EYEPiece

This adjustment is permanently lubricated. There is no need to lubricate it. The eyepiece can be rotated as far as it will go in either direction. It will not detach from the scope because of an internal lock ring.

SEALS

Leupold scopes are sealed from within by several methods. All seals are permanent and require no maintenance.

SCOPE EXTERIOR

Leupold Mark 4 CQ/T 1-3x14mm scopes are made of rugged 6061-T6 aircraft aluminum alloy. No maintenance of any kind is required; simply wipe off any dirt or fingerprints that accumulate with a clean, dry cloth.

MAGNIFICATION SELECTOR

No lubrication is ever required on the power selector ring. **DO NOT LOOSEN OR REMOVE THE SCREW IN THE POWER SELECTOR RING.**

Troubleshooting

Before you ship a scope back to the factory for service or repair, please check the following items to make sure that the problem is really with the scope, and not the rifle or mount system.

1. Check the mount. Make sure the scope is mounted securely to the rifle. Try, with bare hands only, to twist the scope or see if anything moves when you jiggle it. If there is any movement, retighten the mounting system according to mounting instructions.
2. Make sure the action of your rifle is properly bedded in the stock, and that all receiver screws are tight and have been tightened in the sequence recommended by the manufacturer. A loosely fitted stock can cause changes to the point-of-impact.
3. When test firing a rifle to check the point-of-impact relative to windage and elevation adjustments, be sure to fire from a solid bench with sandbags supporting the forearm and buttstock.
4. Be sure to use factory-loaded ammunition of the same bullet type, weight, and preferably, lot number. If one type of ammunition does not shoot well, try another brand or bullet weight.
5. Be certain that both the barrel and chamber are clean. Heavy factory grease on a new rifle and copper fouling on an older one can diminish the accuracy of the firearm.

Leupold Product Service

If your Leupold Mark 4 CQ/T scope fails to perform in any way, you may return it directly to the factory for service. It is not necessary for your dealer to ship the scope to Leupold; however, they can be very helpful in determining if factory service is necessary. Please follow these shipping instructions:

1. Remove any accessories from the scope.
2. Record the serial number of the scope and keep it for your records.
3. Include a note with your name, address, telephone number, e-mail, and a description of the problem.
4. Pack the scope in its original box (if you have it), as this is the safest shipping container. Wrap the package securely using filament strapping tape on the outside.
5. Ship the scope by insured parcel or mail service to one of the following addresses:

In the United States:

Parcel Service:

Leupold & Stevens, Inc.
Attn: Product Service Dept.
14400 N.W. Greenbrier Parkway
Beaverton, OR 97006-5791
USA

By Mail:

Leupold & Stevens, Inc.
Attn: Product Service Dept.
P.O. Box 688
Beaverton, OR 97075-0688
USA

Outside the United States:

All Leupold CQ/T Scopes must be serviced by our factory in the United States. A U.S. Department of State License is required for the export & import of ALL products under the International Traffic in Arms (ITAR) Regulations (22CFR, Parts 120-130); we strongly recommend contacting us directly prior to sending any CQ/T from outside the United States.

The Leupold Product Service telephone number is **1 800 LEUPOLD (538-7653) or (503) 526-1400**. They can also be contacted through our Web site at **www.leupold.com**.

The Best Consumer Protection in the Business

All Leupold Golden Ring® products are manufactured in the USA. Equally important, they are made with your absolute satisfaction in mind.

THE LEUPOLD ELECTRONICS WARRANTY

Certain Leupold scopes are equipped with electronic components, which operate independently of the mechanical and optical systems of the scopes. These electronic components are warranted for a full two years against all material and manufacturing defects. This warranty is effective from the date of purchase of the scope. If, within the course of normal usage, the electronic components of any Leupold scope malfunction within this period, we will, at our option, repair or replace it.

The Leupold package is made in part from recycled materials and is 100% recyclable. This includes the black polypropylene supports, which are made of an accepted recyclable material. Many Leupold owners keep their scope boxes. If you have no use for yours, we encourage you to dispose of it responsibly.

LEUPOLD MAKES MORE THAN SCOPES

See our complete line of rangefinders mounting systems, binoculars, spotting scopes, flashlights and accessories at your nearest Leupold dealer.

For a free Leupold catalog, write to: Leupold & Stevens, Inc., P.O. Box 688, Beaverton, OR 97075-0688; call **1 800 LEUPOLD (538-7653)** or **(503) 526-1400**; or send us an e-mail through our Web site at **www.leupold.com**.

LEUPOLD MARK 4 PRODUCTS WARRANTY

Warranties on Leupold tactical optical products vary depending on use and other factors. For more information regarding the warranties on these products, contact Leupold at (503) 526-1400 or 1-800-Leupold (538-7653).

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We reserve the right to make design and/or material modifications without prior notice.

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